

SECTION A (1 MARK) MCQ

1. Graphically, the pair of equation
 $6x-3y+10=0$
 $2x-y+9=0$
 Represents two lines which are

- (A) Intersecting at exactly one point
 (B) Intersecting at exactly two point
 (C) Coincident
 (D) Parallel

2. The pair of equation $x+2y+5=0$ and $-3x-6y+1=0$ have :

- (A) A unique solution
 (B) Exactly two solutions
 (C) Infinitely many solutions
 (D) No Solution

3. If a pair of linear equations is consistent, then the lines will be:

- (A) Parallel
 (B) Always coincident
 (C) Intersecting or coincident
 (D) Always intersecting

4. For what value of k, do the equations $3x-y+8=0$ and $6x-ky-16=0$ represents coincident lines?

- (A) 12
 (B) -12
 (C) 2
 (D) -2

5. The father's age is six times his son's age. Four years hence, the age of the father will be four times his son's age. The present ages, in years, of the son and the father are, respectively:

- (A) 4 and 24
 (B) 5 and 30
 (C) 6 and 36
 (D) 3 and 24

6. The point of intersection of the line represented by $3x-y=3$ and y-axis is given by

- (A) (0,-3) (B) (0,3) (C) (2,0) (D) (-2,0)

$$\frac{2}{k-1} \neq \frac{3}{k+2}$$

$$2(k+2) \neq 3(k-1)$$

$$2k+4 \neq 3k-3$$

$$0 \neq 3k-2-4$$

$$0 \neq 3k-6$$

$$3k \neq 6$$

$$k \neq 2$$

For what value of k, does the system of linear equations have an infinite number of solutions

$$2x+3y=7, (k-1)x+(k+2)y=3k$$

- (A) 7 (B) 17 (C) -6 (D) -7

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$$

$$\frac{2}{k-1} = \frac{3}{k+2} = \frac{7}{3k}$$

8. The pair of linear equations $y=0$ and $y=-6$ has

- (A) unique solution
 (B) no solution
 (C) infinitely many solution
 (D) only solution (0,0)

$$0x+y=0 \rightarrow 0x+y+6=0$$

9. The sum of digits of a two-digit number is 9. If 27 is subtracted from the number, its digits are interchanged. Which of these is the product of the digits of the number?

- (A) 8 (B) 14 (C) 18 (D) 20

10. If $x=a$ and $y=b$ is the solution of the equations $x-y=2$ and $x+y=4$, then the values of a and b are respectively

- (A) 3 and 5 (B) 5 and 3 (C) 3 and 1 (D) -1 and 3

$$x=a \quad y=b$$

$$a-b=2$$

$$a+b=4$$

$$2a=3, y=1$$

$$x=2a \quad y=3b$$

$$3=2a \quad 1=3b$$

$$\therefore a=\frac{3}{2} \quad \frac{1}{3}=b$$

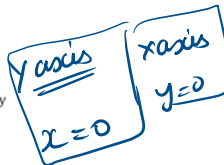
$$\text{If } x=3a, y=3b$$

$$3=3a$$

$$a=1$$

$$1=3b$$

$$b=\frac{1}{3}$$



$$3(0)-y=3$$

$$3(0)-y=3$$

$$-y=3$$

$$y=-3$$

$$27-8=19 \times$$

$$27-14=13 \times$$

$$27-18=9$$

$$27-20=7 \times$$

$$18=9$$

$$1 \times 8 = 8$$